barrier coating, and the ceramic thermal barrier coating has an inner region adjacent the bond coat and an outer region facing away from the bond coat, and the inner region of the ceramic thermal barrier coating has a spinel of the structural formula AB_2X_4 and/or $B(AB)_2X_4$, wherein

- X represents an element or several elements of the group comprising oxygen, sulfur, selenium, and tellurium,
- A represents an element or several elements of the group comprising aluminum, manganese, iron, cobalt, nickel, copper, zinc, cadmium, silicon, titanium and tungsten, and
- B represents an element or several elements of the group comprising aluminum, magnesium, manganese, iron, vanadium, chromium, gallium, silicon, titanium sodium, and potassium.

C1 CONT.

4. (Twice Amended) An article of manufacture that can be exposed to a hot gas, having a metallic base body, a bond coat and a ceramic thermal barrier coating bonded thereto wherein the bond coat is disposed between the metallic body and the ceramic thermal barrier coating, and the ceramic thermal barrier coating has an inner region adjacent the bond coat and an outer region facing away from the bond coat, and the inner region of the ceramic thermal barrier coating has a spinel according to the structural formula AB_2X_4 and/or $B(AB)_2X_4$ characterized in that B represents aluminum (aluminate spinel) or chromium (chromium spinel), A represents magnesium, and X represents oxygen.

C2

6. (Three Times Amended) The article of manufacture as claimed in Claim 2, characterized in that the mixed oxide system with the spinel has an additional oxide or several additional oxides admixed to the spinel of the group comprising of MgO, ZrO_2 , and HfO_2.

C3

16. (Twice Amended) A method of manufacturing a thermal barrier coating on a gas turbine component with a metallic base body, and a bond coat wherein the thermal barrier coating has an inner region adjacent the bond coat and an outer region facing away from the bond coat, and the inner region of the thermal barrier coating has a pre-reacted spinel of the structural formula AB_2X_4 and/or $B(AB)_2X_4$ being applied by means of plasma spraying or vapor deposition such that the spinel containing inner region is formed.

18. (Twice Amended) The article of manufacture as claimed in Claim 1, characterized in that the mixed oxide system with the spinel has an additional oxide or several additional oxides admixed to the spinel of the group comprising of MgO, ZrO_2, and HfO_2 .

REMARKS

Applicants have amended claims 1, 4, 6, 16 and 18. Thus, claims 1-7 and 9-22 more accurately claims applicants invention and are pending in the application and presented for examination. Applicants respectfully request allowance of the present application in view of the foregoing amendments and the following remarks.

Response To Rejections Under Section 112:

Claims 1,-7, 9-22 stand rejected under 35 U.S.C. § 112, second paragraph, the Examiner stating that the language therein is indefinite and does "not describe in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filled, had possession of the claimed invention. The added limitation excluding the certain spinels are not explicitly stated in the original specification." Applicants have amended the claims to delete the indefinite language such that the present amended claims